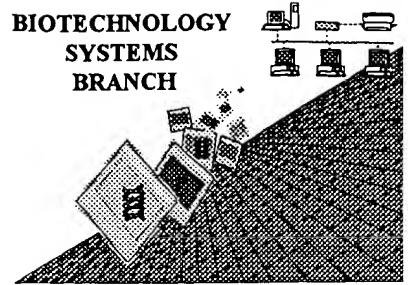


Style

# RAW SEQUENCE LISTING

## ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following CRF diskette:

Application Serial Number: 09/105,117F

Art Unit / Team No.: 1653

Date Processed by STIC: 11/4/99

**THE ATTACHED PRINTOUT EXPLAINS THE ERRORS DETECTED.**

**PLEASE BE SURE TO FORWARD THIS INFORMATION TO THE APPLICANTS BY EITHER:**

**1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANTS ALONG WITH A NOTICE TO COMPLY or,**

**2) CALLING APPLICANTS AND FAXING THEM A COPY OF THE PRINTOUT WITH A NOTICE TO COMPLY**

**THIS WILL INSURE THAT THE NEXT SUBMISSION RECEIVED FROM THEM WILL BE ERROR FREE.**

**IF YOU HAVE ANY FURTHER QUESTIONS, PLEASE CALL:**

**MARK SPENCER 703-308-4212**

# Raw Sequence Listing Error Summary

<u>ERROR DETECTED</u>	<u>SUGGESTED CORRECTION</u>	<u>SERIAL NUMBER:</u> <u>09/105,117F</u>
<b>ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE</b>		
1 <input type="checkbox"/> Wrapped Nucleics	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3, as this will prevent "wrapping".	
2 <input type="checkbox"/> Wrapped Aminos	The amino acid number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3, as this will prevent "wrapping".	
3 <input type="checkbox"/> Incorrect Line Length	The rules require that a line not exceed 72 characters in length. This includes spaces.	
4 <input type="checkbox"/> Misaligned Amino Acid Numbering	The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs between the numbering. It is recommended to delete any tabs and use spacing between the numbers.	
5 <input type="checkbox"/> Non-ASCII	This file was not saved in ASCII (DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text so that it can be processed.	
6 <input type="checkbox"/> Variable Length	Sequence(s) <input type="checkbox"/> contain n's or Xaa's which represented more than one residue. As per the rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the (ix) feature section that some may be missing.	
7 <input type="checkbox"/> PatentIn ver. 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequence(s) <input type="checkbox"/> . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence.	
8 <input type="checkbox"/> Skipped Sequences (OLD RULES)	Sequence(s) <input type="checkbox"/> missing. If intentional, please use the following format for each skipped sequence: <b>(2) INFORMATION FOR SEQ ID NO:X:</b> <b>(i) SEQUENCE CHARACTERISTICS:</b> (Do not insert any headings under "SEQUENCE CHARACTERISTICS") <b>(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X:</b> <b>This sequence is intentionally skipped</b>  Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).	
9 <input type="checkbox"/> Skipped Sequences (NEW RULES)	Sequence(s) <input type="checkbox"/> missing. If intentional, please use the following format for each skipped sequence. <b>&lt;210&gt; sequence id number</b> <b>&lt;400&gt; sequence id number</b> <b>000</b>	
10 <input checked="" type="checkbox"/> Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Use of <220> to <223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
11 <input type="checkbox"/> Use of <213>Organism (NEW RULES)	Sequence(s) <input type="checkbox"/> are missing this mandatory field or its response.	
12 <input type="checkbox"/> Use of <220>Feature (NEW RULES)	Sequence(s) <input type="checkbox"/> are missing the <220>Feature and associated headings. Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial" or "Unknown" Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules)	
13 <input type="checkbox"/> PatentIn ver. 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other means to copy file to floppy disk.	

Stale

1653

PAGE: 1

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/105,117F

DATE: 11/04/1999  
TIME: 15:34:10

Input Set: I105117F.RAW

This Raw Listing contains the General Information  
Section and up to first 5 pages.

1 <110> APPLICANT: Vrjic, Marina  
2 Eggeling, Lothar  
3 Sahm, Harmann  
4 <120> TITLE OF INVENTION: PROCESS FOR THE MICROBIAL PRODUCTION OF AMINO ACIDS BY  
5 BOOSTED ACTIVITY OF EXPORT CARRIERS  
6 <130> FILE REFERENCE: fj122 oct99  
7 <140> CURRENT APPLICATION NUMBER: US/09/105,117F  
8 <141> CURRENT FILING DATE: 1998-06-17  
9 <150> EARLIER APPLICATION NUMBER: PCT/DE96/02485  
10 <151> EARLIER FILING DATE: 1996-12-18  
11 <150> EARLIER APPLICATION NUMBER: 195 48 222.0  
12 <151> EARLIER FILING DATE: 1995-12-22  
13 <160> NUMBER OF SEQ ID NOS: 3  
14 <170> SOFTWARE: PatentIn Ver. 2.1  
15 <210> SEQ ID NO 1  
16 <211> LENGTH: 290  
17 <212> TYPE: PRT  
18 <213> ORGANISM: Corynebacterium glutamicum  
19 <400> SEQUENCE: 1  
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21 1 5 10 15  
22 Ser Phe Glu Gly Ala Ser Leu Ala Leu Ser Ile Ser Pro Ser Ala Val  
23 20 25 30  
24 Ser Gln Arg Val Lys Ala Leu Glu His His Val Gly Arg Val Leu Val  
25 35 40 45  
26 Ser Arg Thr Gln Pro Ala Lys Ala Thr Glu Ala Gly Glu Val Leu Val  
27 50 55 60  
28 Gln Ala Ala Arg Lys Met Val Leu Leu Gln Ala Glu Thr Lys Ala Gln  
29 65 70 75 80  
30 Leu Ser Gly Arg Leu Ala Glu Ile Pro Leu Thr Ile Ala Ile Ala Ala  
31 85 90 95  
32 Asp Ser Leu Ser Thr Trp Phe Pro Pro Val Phe Ala Glu Val Ala Ser  
33 100 105 110  
34 Trp Gly Gly Ala Thr Leu Thr Leu Arg Leu Glu Asp Glu Ala His Thr  
35 115 120 125  
36 Leu Ser Leu Leu Arg Arg Gly Asp Val Leu Gly Ala Val Thr Arg Glu  
37 130 135 140  
38 Ala Ala Pro Val Ala Gly Cys Glu Val Val Glu Leu Gly Thr Met Arg  
39 145 150 155 160  
40 His Leu Ala Ile Ala Thr Pro Ser Leu Arg Asp Ala Tyr Met Val Asp  
41 165 170 175  
42 Gly Lys Leu Asp Trp Ala Ala Met Pro Val Leu Arg Phe Gly Pro Lys  
43 180 185 190  
44 Asp Val Leu Gln Asp Arg Asp Leu Asp Gly Arg Val Asp Gly Pro Val

Does Not Comply  
Corrected Diskette Needed

JL 2-3

PAGE: 2

## RAW SEQUENCE LISTING

PATENT APPLICATION US/09/105,117F

DATE: 11/04/1999

TIME: 15:34:10

Input Set: I105117F.RAW

45 195 200 205  
 46 Gly Arg Arg Arg Val Ser Ile Val Pro Ser Ala Glu Gly Phe Gly Glu  
 47 210 215 220  
 48 Ala Ile Arg Arg Gly Leu Gly Trp Gly Leu Leu Pro Glu Thr Gln Ala  
 49 225 230 235 240  
 50 Ala Pro Met Leu Lys Ala Gly Glu Val Ile Leu Leu Asp Glu Ile Pro  
 51 245 250 255  
 52 Ile Asp Thr Pro Met Tyr Trp Gln Arg Trp Arg Leu Glu Ser Arg Ser  
 53 260 265 270  
 54 Leu Ala Arg Leu Thr Asp Ala Val Val Asp Ala Ala Ile Glu Gly Leu  
 55 275 280 285

56 Arg Pro

57 290

58 &lt;210&gt; SEQ ID NO 2

59 &lt;211&gt; LENGTH: 2990

60 &lt;212&gt; TYPE: DNA

61 &lt;213&gt; ORGANISM: Corynebacterium glutamicum

62 &lt;400&gt; SEQUENCE: 2

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 64 ysgggacttg gaaaagtctt cattgattcc ggcgttaggg agctaaccgac gtagttgctg 120  
 65 ccgrgaadvv acagacactc agatcgatct ctagatctaa ggtccgcggg agcaacgggt 180  
 66 atgttagccac adtrrasrsrw rwymtcagtt acccatagag tagctctcc tagtgaagag 240  
 67 gacgaaaatc gtaccctcggt cgaacddvga kmaaccaaag cccttcttca ggggttgggt 300  
 68 ccggagccgc ttaacggagt gttttggaa ggcgtgwgr raggagctgc cctgttacct 360  
 69 atgcgcggac gccccgtgtc ctggtagctg cgccggcagg tccagsvsvr rrgvgdvrld 420  
 70 dtgccagaac ttcgtgtaga aaccctggct tcgcattctg cccgttagcgt cgggttagat 480  
 71 crdvdkrvm aawdaaaggg tagttgtac atccgttaggg cgttactccc ccaacgttac 540  
 72 cggttacccg cgtakgdvmy adrstaahrm ccaagggttca agatgtatgaa gtgtaggcg 600

W--> 73 *see item 10* 660 )  
 W--> 74 *item 10* ggcgtcggtc ctattacaca cgcgaagtag aagggtcggt tcgcavdgrs sthadrtctc 720 )  
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 W--> 77 *item 10* tatcaacgcg sdanatargs aaaatcaaag acgaacgtcg ttgtgtaaa aggccgcacg 900 )  
 W--> 78 *item 10* aacgtttcc tgaagtggc gktavmkraa vvgaaaagcca acgaaaaccgg ccaacccacg 960 )  
 W--> 79 *item 10* cgctatggtt gtgagctggg tgcactacga gctctakatr svvrgvhhtc gaaattgcgc 1020 )  
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 W--> 81 *item 10* agtabrcgsy sgcttcgacg gaagtagtta ctaactctcg tttcacaggt caacttaccc 1140 )  
 W--> 82 *item 10* caagtatgcc ttcataatg attgagagca aagtgtccag ttgaatgggg ttcataaagc 1200 )  
 W--> 83 *This pertains to* tsgdstdnmr bsatattaaa ccatgttaag aaccaatcat tttacttaag tacttccata 1260 )  
 W--> 84 *This pertains to* ggtcacatgt gtmvysgatc atggaaatct tcattacagg tctgcttttg gggccagtc 1320 )  
 W--> 85 *This pertains to* ttttactgtc catcggttgg assgaccgca gaatgtactg gtgattaaac aaggaattaa 1380 )  
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 W--> 87 *This pertains to* tttgttcat cggccgcacc ttggcggtt atctvcsdva gtvdttgt ccaatgccgc 1500 )  
 W--> 88 *All lines* gccgatcggt ctcgatatta tgcgttggg tggcatcgct tacctsnaav dmrwggaygt 1560 )  
 W--> 89 *with* tatggtttgc cgtcatggca gcgaaaagacg ccatgacaaa caaggtggaa gcccacawa 1620 )  
 W--> 90 *with* vmaakdamtn kvgatcatt gaagaaacag aaccaaccgt gcccgtatgac acgcctttgg 1680 )  
 W--> 91 *with* gcggttcggc ggtttvddtg gsavggccac tgacacgcgc aaccgggtgc ggggtggaggt 1740 )  
 W--> 92 *with* gagcgtcgat aagcagcggg tttgatdtrn rvrvsvdvr vwgtaaagc ccatgttgc 1800 )  
 W--> 93 *W-->* ggcaatcggt ctgacccgtt gtaacccgaa tgcgttattt gavkmmavtw nnaydcgcgt 1860 )  
 W--> 94 *at beginning of line* ttgtgttat cggccgcgtc ggcgcgcaat acggcgacac cggacggtgg atttavggv 1920 )

PAGE: 3

## RAW SEQUENCE LISTING

DATE: 11/04/1999

PATENT APPLICATION US/09/105,117F

TIME: 15:34:10

Input Set: I105117F.RAW

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 96 cggcgacca agaaaaswvgg aaagcattgt cacgcccgcgt gtccagcccc aagggtgtggc 2040  
 W--> 97 *See Item 10* gctggatcaa cgtcgctgtg gcasrskvw rwnvvvatab rtgsttrnrt kctactggcg 2100  
 98 taaccgttag tttgactaca actacccaat caaaagcgcc caaaaagttg tgatgaccgc 2160  
 99 attggccatc aaactgtatgt tgatgggtta gtttgcgg gvvmtaakmm gysccttagc 2220  
 100 caccggaaagc gggtttacaa ctacggccgc agcaccctt agagtagcta gcsdakaw 2280  
 W--> 101 *or* ngadhsdaga ggtttagccg cagtctttg aggttcaaca actcaacttag ttccgacaac 2340  
 W--> 102 *Even* aggtcgacac snnssdsndga gttgactgt tcgtggtag ttacgtgacc agtgcctatag 2400  
 103 ggcggccatg agaggaacvs sagastvtda gyggagcgcg tcgtgggtac gttcgcggta 2460  
 104 gacgcgttca ctgacggccg caaggaccgc ctarvwaama sgracagtaa ctcgaacgcc 2520  
 W--> 105 *Summary* tggtataatgatataacaatgt caagttgtac gggagtctgt ccctdnkrvm dnnvnmgssg 2580  
 106 *Meet* aatgggaccg accgcgcct tgggagacct taaggttagct ctataaacag gcactcgck 2640  
 107 gsarsggdyk dtcgggacgc gttcaccact ctttcgttac tgccgttctg gtaacaaccg 2700  
 W--> 108 tcgactgacg ttgasavggg naasgttcaa gagtggcagt agcgggccaa ggaggtgggt 2760  
 W--> 109 tgctaattac taccttatacg aaccngddgv wrnsysgact acttagtctt cggccgtcgg 2820  
 110 gaggaggccg tacttgagtc ggcggaggccg acactchcga maaatgagac ctggcatcct 2880  
 111 tctttatggg tgcatttctc ggaaaggctc gcgttgcgttac agtgcgyssg vyakgsavdr 2940  
 112 rgttacgcat gtaccaaaga aggttcctc atagaaymtt dtabrtgstt 2990  
 113 <210> SEQ ID NO 3  
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 115 <212> TYPE: PRT  
 116 <213> ORGANISM: Corynebacterium glutamicum  
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 1 5 10 15  
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 120 20 25 30  
 121 Ile Lys Arg Glu Gly Leu Ile Ala Val Leu Leu Val Cys Leu Ile Ser  
 122 35 40 45  
 123 Asp Val Phe Leu Phe Ile Ala Gly Thr Leu Gly Val Asp Leu Leu Ser  
 124 50 55 60  
 125 Ala Ala Ala Pro Ile Val Leu Asp Ile Met Arg Trp Gly Gly Ile Ala  
 126 65 70 75 80  
 127 Tyr Leu Leu Trp Phe Ala Val Met Ala Ala Lys Asp Ala Met Thr Asn  
 128 85 90 95  
 129 Lys Val Glu Ala Pro Gln Ile Ile Glu Glu Thr Glu Pro Thr Val Pro  
 130 100 105 110  
 131 Asp Asp Thr Pro Leu Gly Gly Ser Ala Val Ala Thr Asp Thr Arg Ala  
 132 115 120 125  
 133 Arg Val Arg Val Glu Val Ser Val Asp Lys Gln Arg Val Trp Val Lys  
 134 130 135 140  
 135 Pro Met Leu Met Ala Ile Val Leu Thr Trp Leu Ala Pro Ala Ala Tyr  
 136 145 150 155 160  
 137 Leu Asp Ala Phe Val Phe Ile Gly Gly Val Gly Ala Gln Tyr Gly Asp  
 138 165 170 175  
 139 Thr Gly Arg Trp Ile Phe Ala Ala Gly Ala Phe Ala Ala Ser Leu Ile  
 140 180 185 190  
 141 Trp Phe Pro Leu Val Gly Phe Gly Ala Ala Leu Ser Arg Pro Leu  
 142 195 200 205  
 143 Ser Ser Pro Lys Val Trp Arg Trp Ile Asn Val Val Val Ala Val Val  
 144

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RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/105,117FDATE: 11/04/1999  
TIME: 15:34:10

Input Set: I105117F.RAW

145	210	215	220
146	Met Thr Ala Leu Ala Ile Lys Leu Met Leu Met Gly		
147	225	230	235

Input Set: I105117F.RAW

## Line ? Error/Warning

73 W "N" or "Xaa" used: Feature required  
76 W "N" or "Xaa" used: Feature required  
77 W "N" or "Xaa" used: Feature required  
83 W "N" or "Xaa" used: Feature required  
86 W "N" or "Xaa" used: Feature required  
88 W "N" or "Xaa" used: Feature required  
90 W "N" or "Xaa" used: Feature required  
92 W "N" or "Xaa" used: Feature required  
93 W "N" or "Xaa" used: Feature required  
97 W "N" or "Xaa" used: Feature required  
101 W "N" or "Xaa" used: Feature required  
102 W "N" or "Xaa" used: Feature required  
105 W "N" or "Xaa" used: Feature required  
108 W "N" or "Xaa" used: Feature required  
109 W "N" or "Xaa" used: Feature required

## Original Text

gtgccctaat cgaagtgcgg aatggcgagg tgvvcgav  
gwsavnvwts gcttagacgc aactaccgct accaattg  
tatcaacgcg sdanatargs aaaatcaaag acgaacgt  
tsgdstdnmr bsatattaaa ccatgttaag aaccaatc  
gcgcgaagga ctcattgcgg ttctnvvkgk rgavtctc  
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tgctaattac taccttatcg aaccngddgv wrnsysga